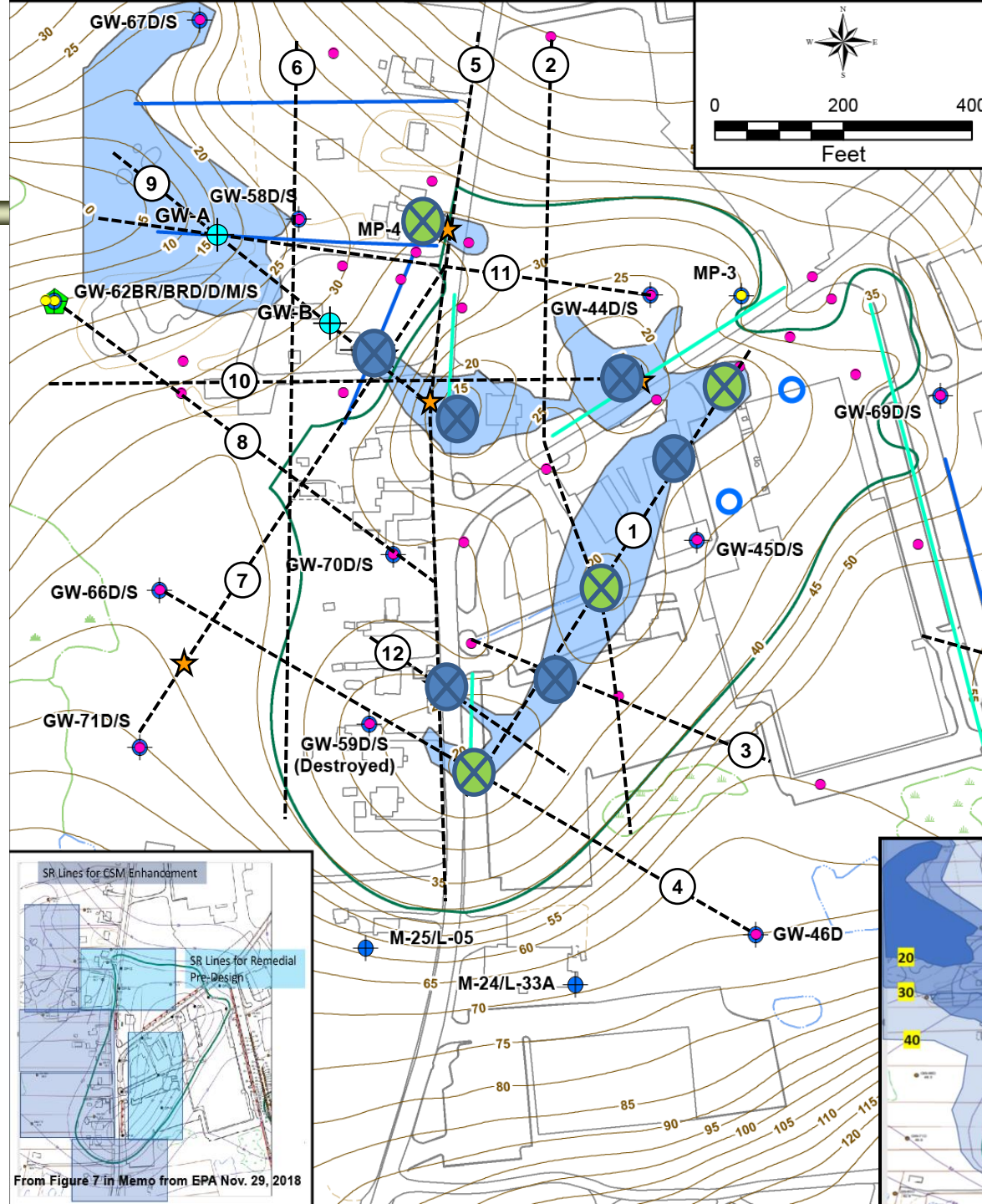
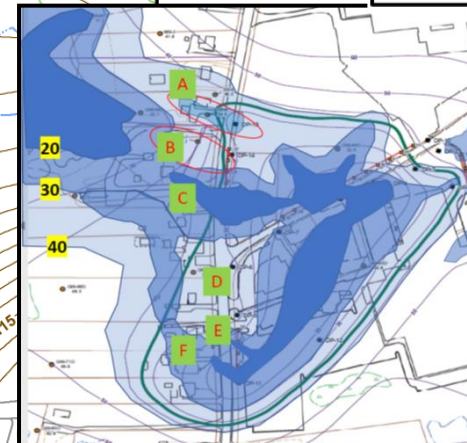
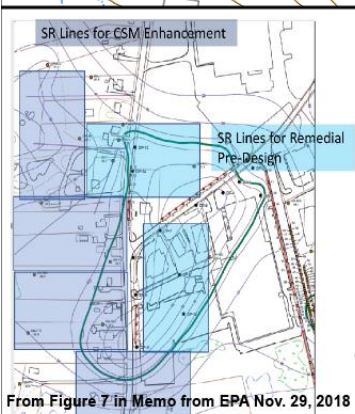


Olin's recommended modifications to USEPA's proposed OCSS seismic Lines following the July 12<sup>th</sup> conference Call

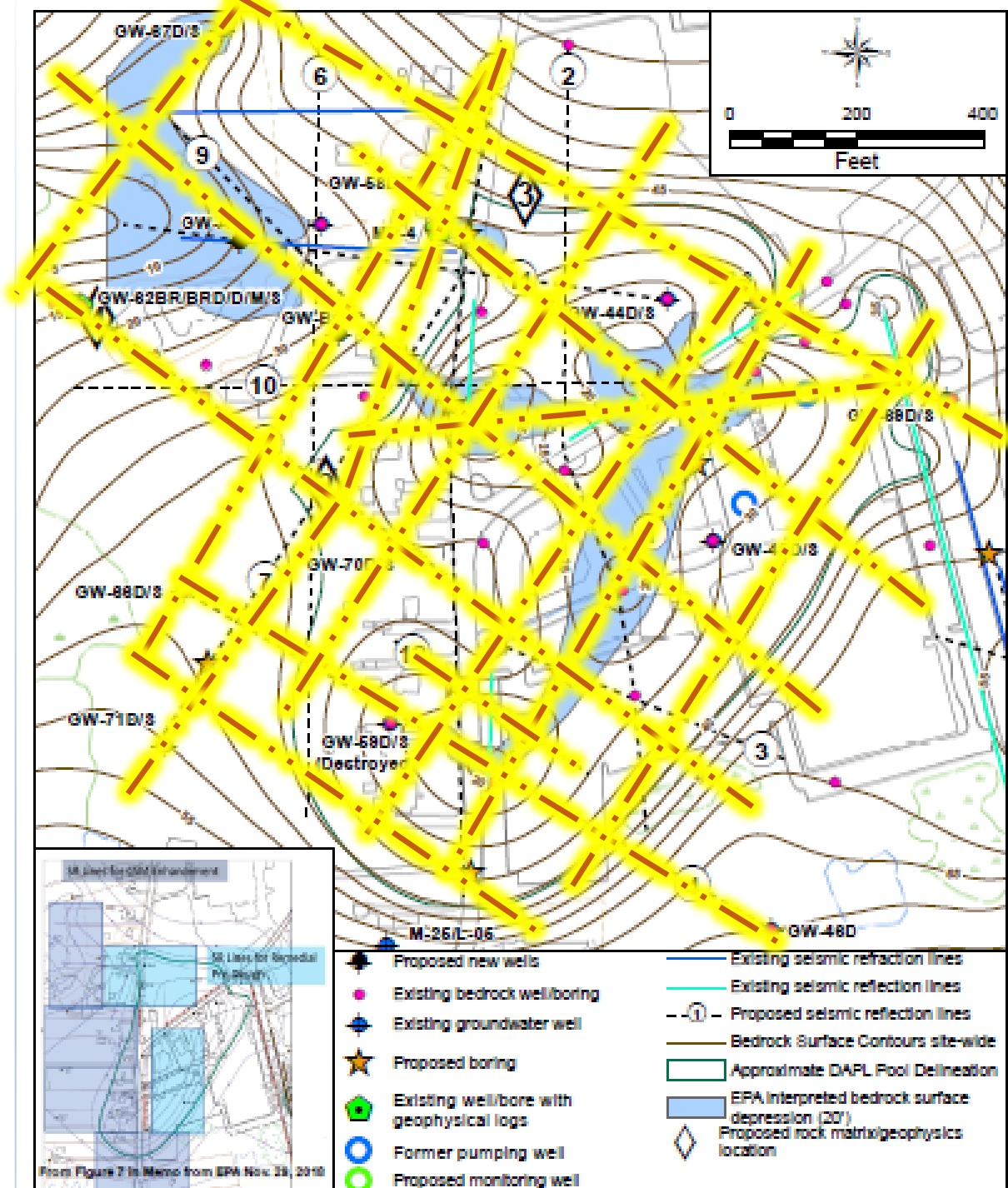
# Main St. Area (OLIN)



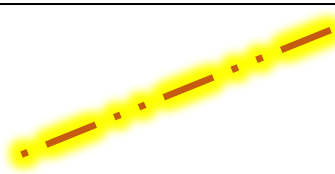
- Existing bedrock well
- Existing boring to bedrock
- Proposed new wells
- Existing S/D groundwater well
- ★ Tentative confirmatory boring
- Existing well/bore with geophysical logs
- Former Sanmina pumping well
- Existing seismic refraction lines
- Existing seismic reflection lines
- ① - Proposed seismic reflection lines
- Bedrock Surface Contours
- Approximate DAPL Pool Delineation
- EPA interpreted bedrock surface depression (20')



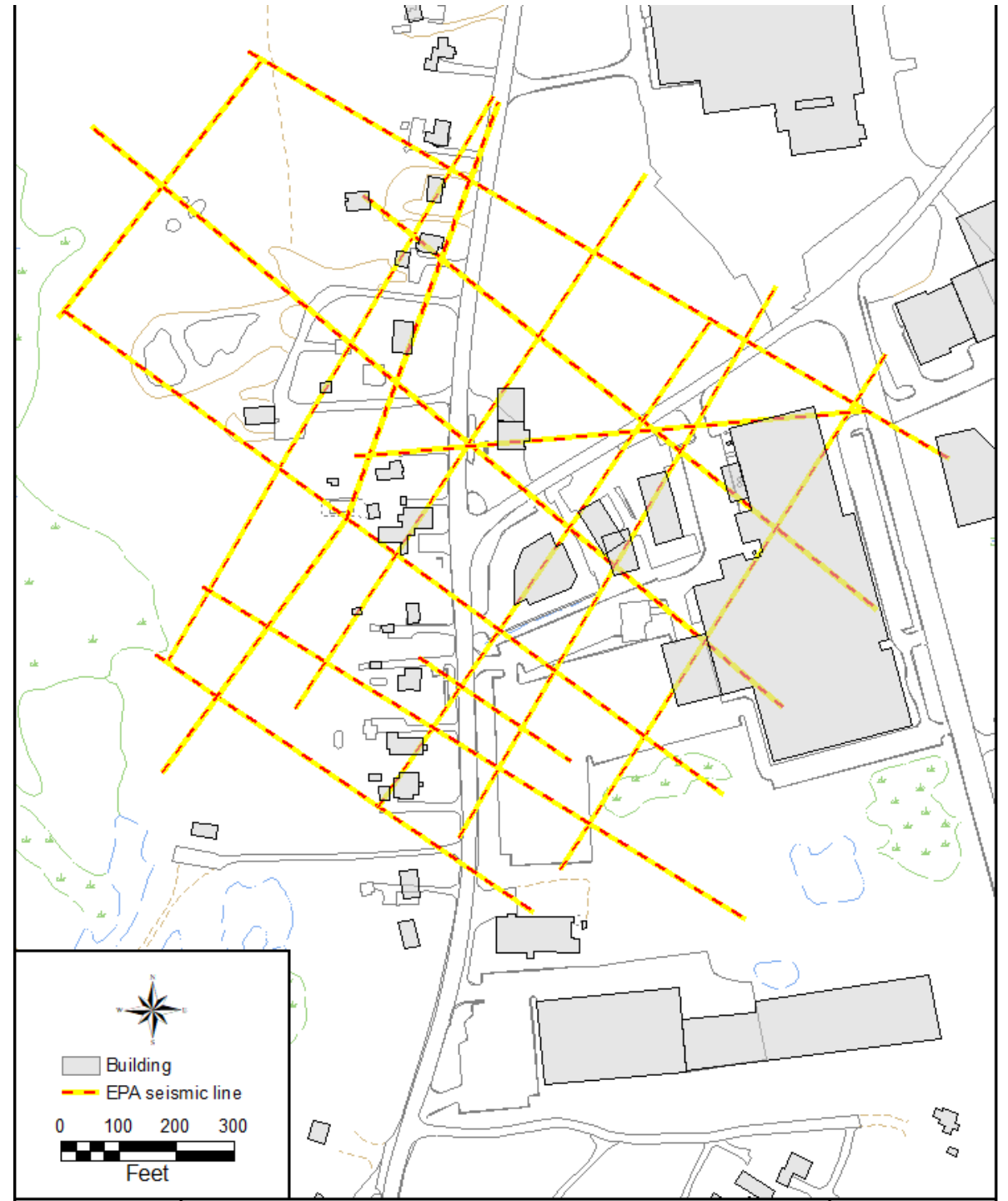
EPA Seismic  
Reflection  
Survey  
Alignments  
(See Memo)



Revised Seismic  
Reflection Alignments



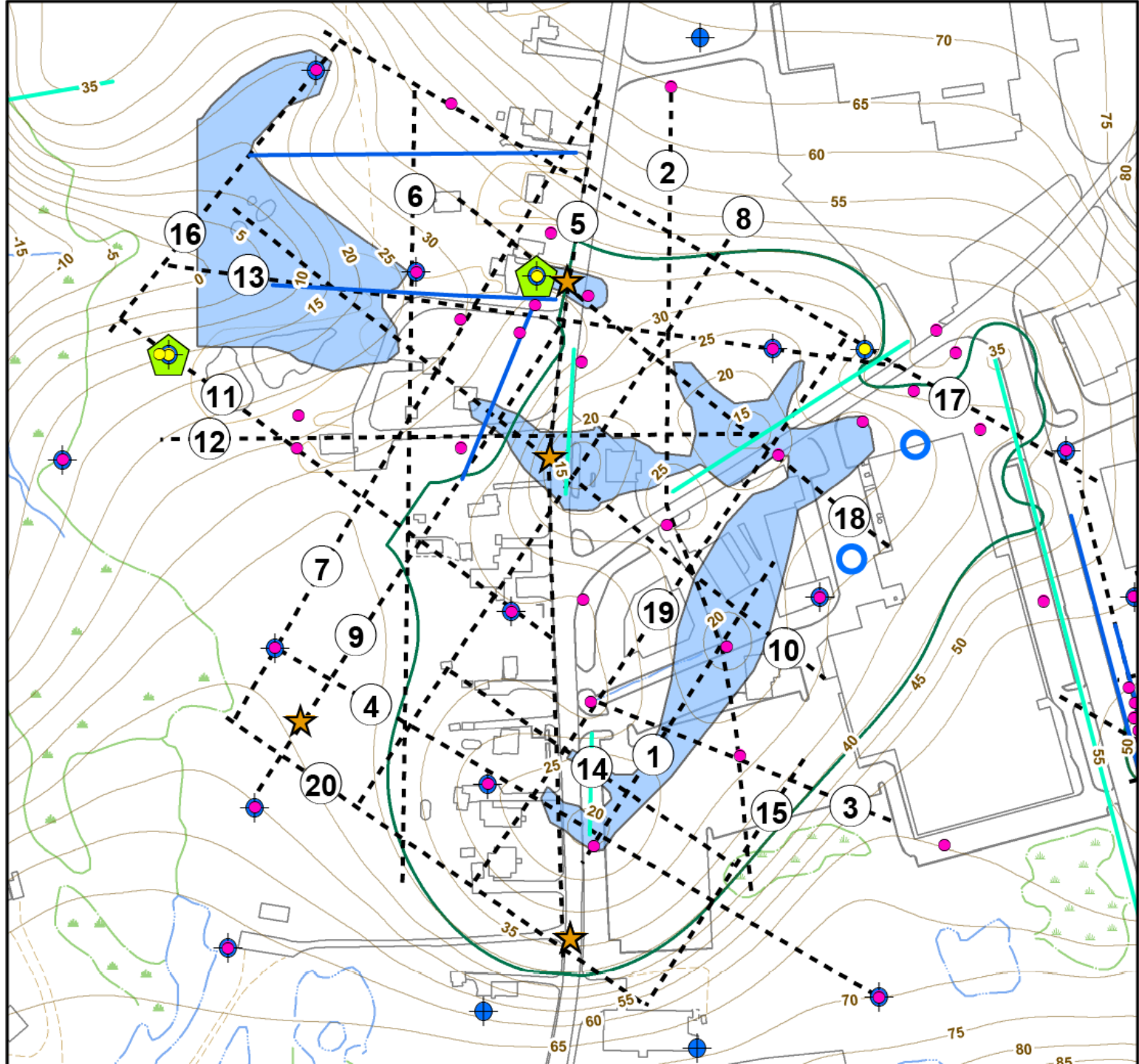
# Main Street Structural Impediments



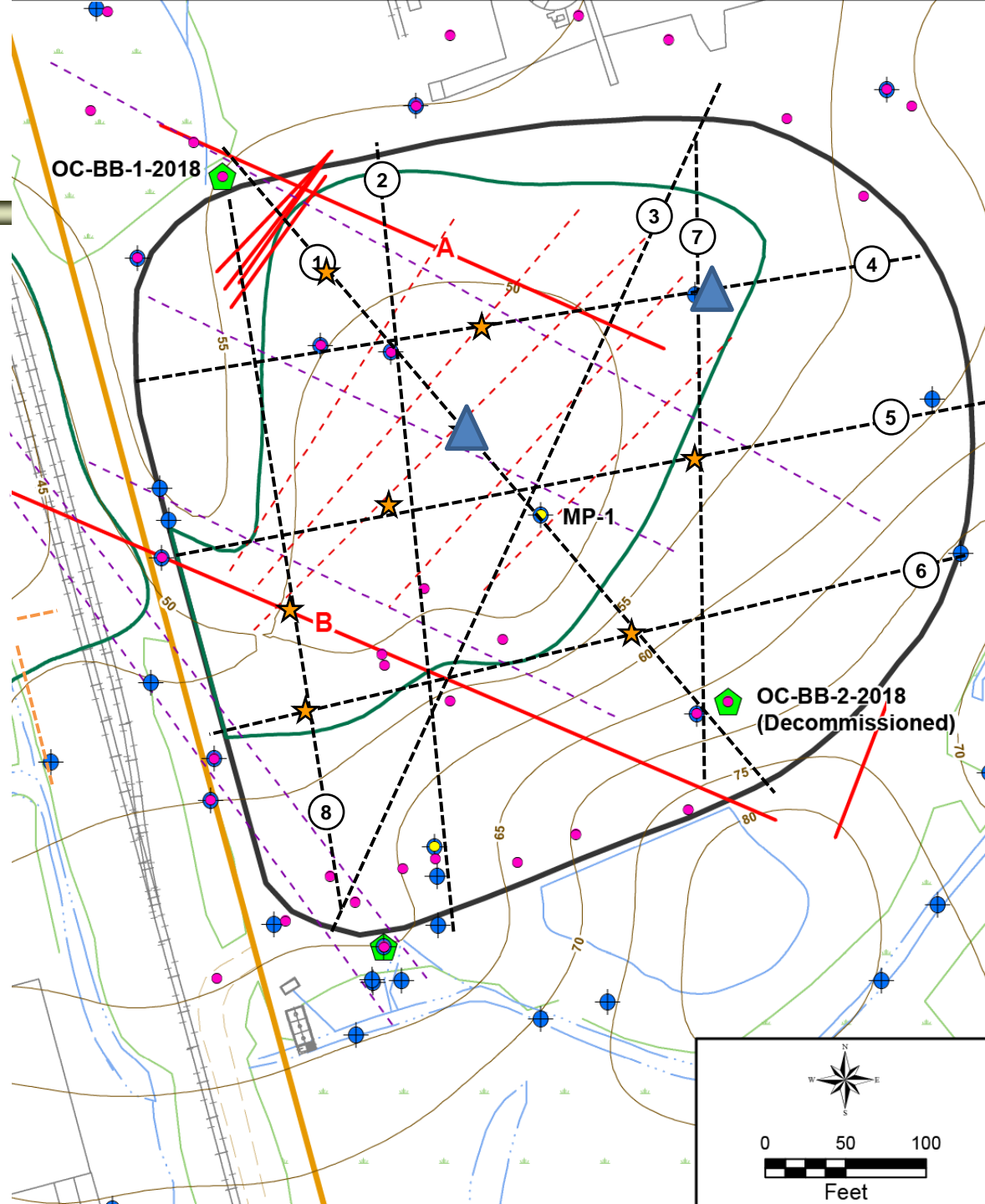


# Olin's New Proposed Lines

These take into consideration  
structural impediments



# Containment Area (OLIN PROPOSAL)



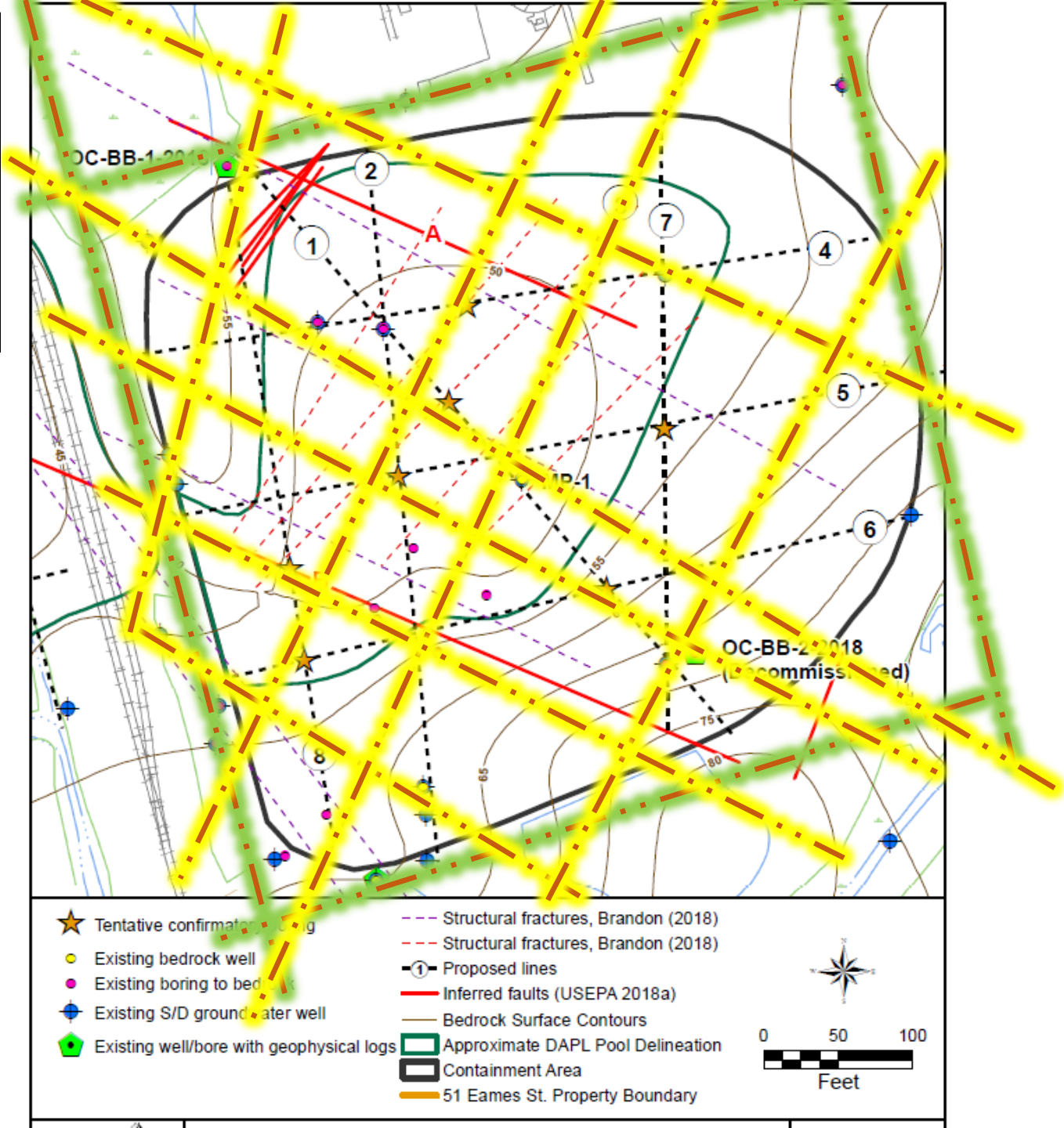
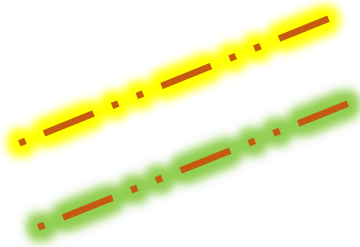
- ★ Tentative confirmatory boring
- Existing bedrock well
- Existing boring to bedrock
- Existing S/D groundwater well
- Existing well/bore with geophysical logs
- - - Structural fractures, Brandon (2018)
- - - Structural fractures, Brandon (2018)
- ① Proposed lines
- Inferred faults (USEPA 2018a)
- Bedrock Surface Contours
- Approximate DAPL Pool Delineation
- ▭ Containment Area
- 51 Eames St. Property Boundary



Preliminary soil bore locations

# EPA Seismic Reflection Survey Alignments (See Memo)

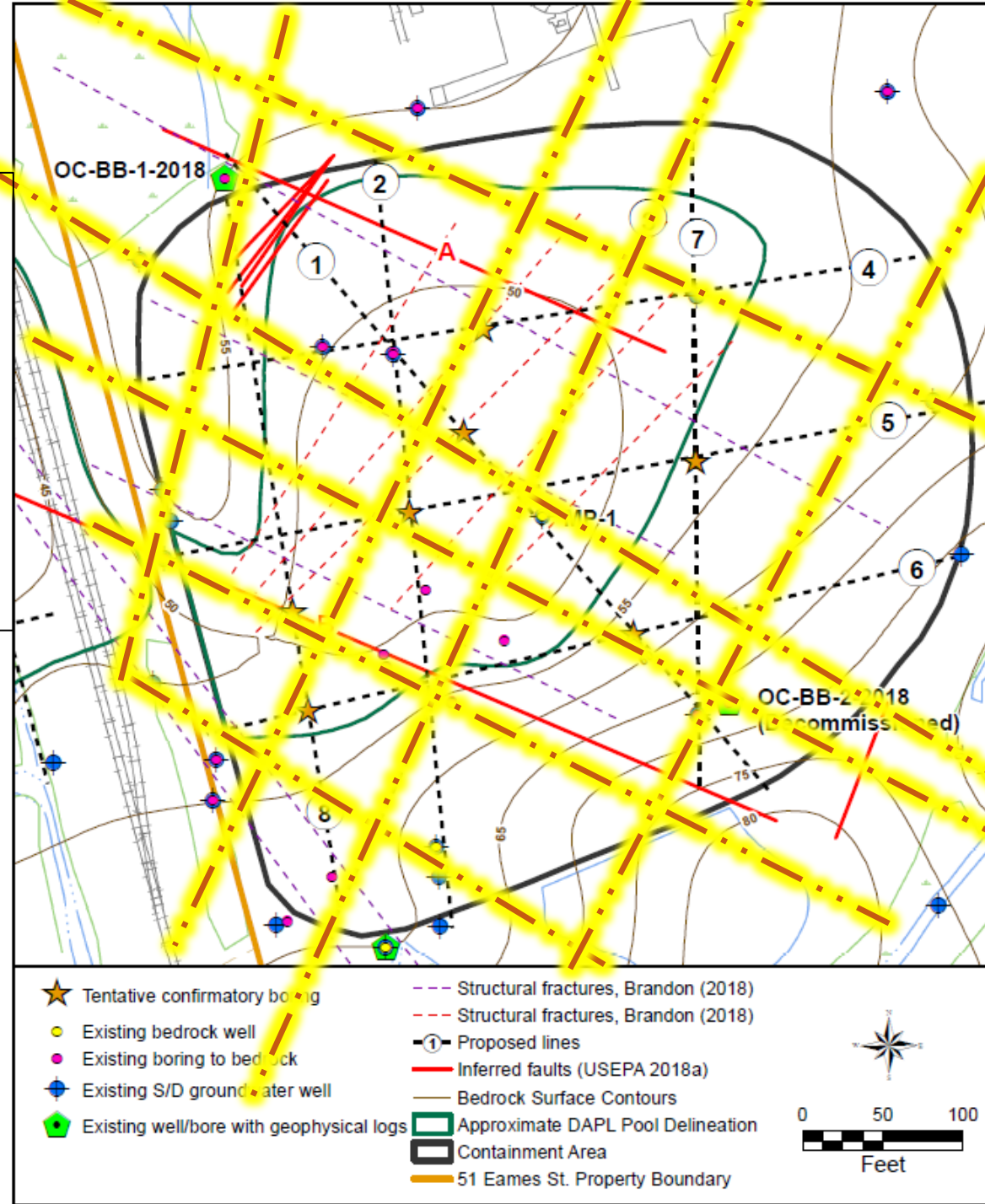
Revised Seismic  
Reflection Alignments





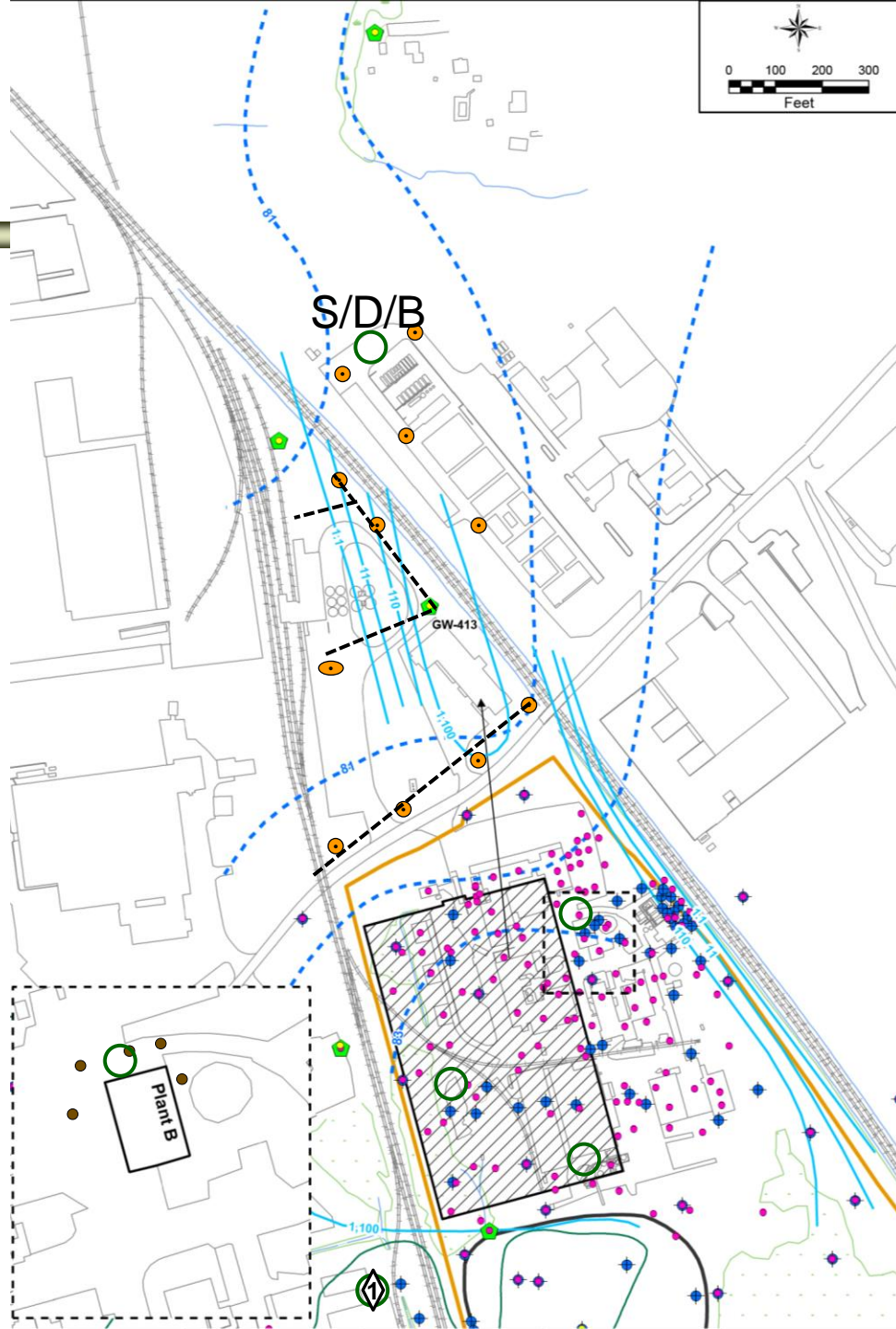
# Olin's Proposal

Remove 4 peripheral seismic lines because the sensitivity of the method to detect gaps under the CA wall is unknown. the lines intersecting the wall will provide information to inform a decision on the value of these lines at a future date.





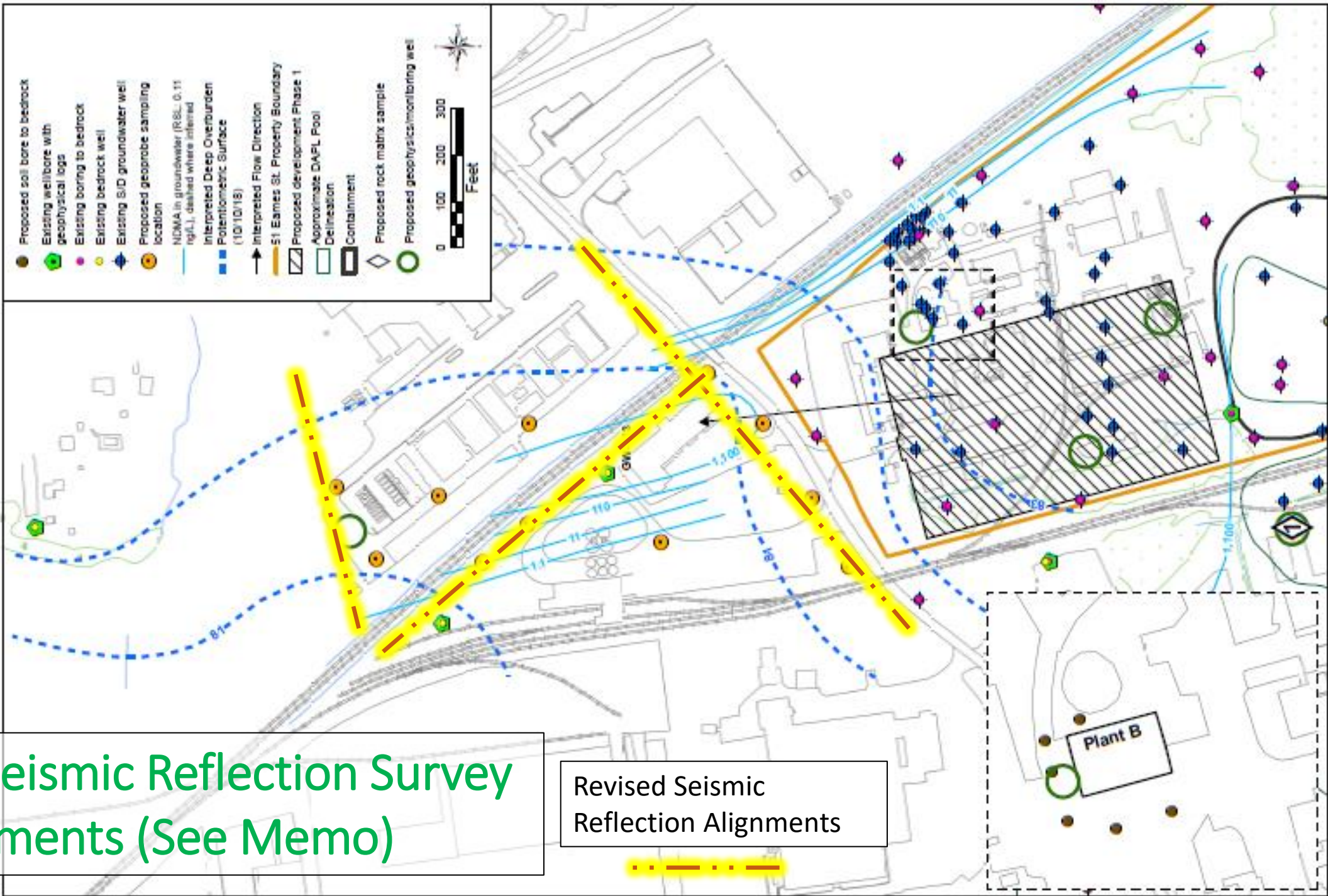
# North of Olin Area (OLIN PROPOSAL)



- Proposed soil bore to bedrock
- ◆ Existing well/bore with geophysical logs
- Existing boring to bedrock
- Existing bedrock well
- Existing S/D groundwater well
- Proposed geoprobe sampling location
- NDMA in groundwater (RSL: 0.11 ng/L), dashed where inferred
- Interpreted Deep Overburden
- Potentiometric Surface (10/10/18)
- Interpreted Flow Direction
- 51 Eames St. Property Boundary
- ▨ Proposed development Phase 1
- Approximate DAPL Pool Delineation
- ▭ Containment
- ◆ Proposed rock matrix sample
- Proposed geophysics/monitoring well

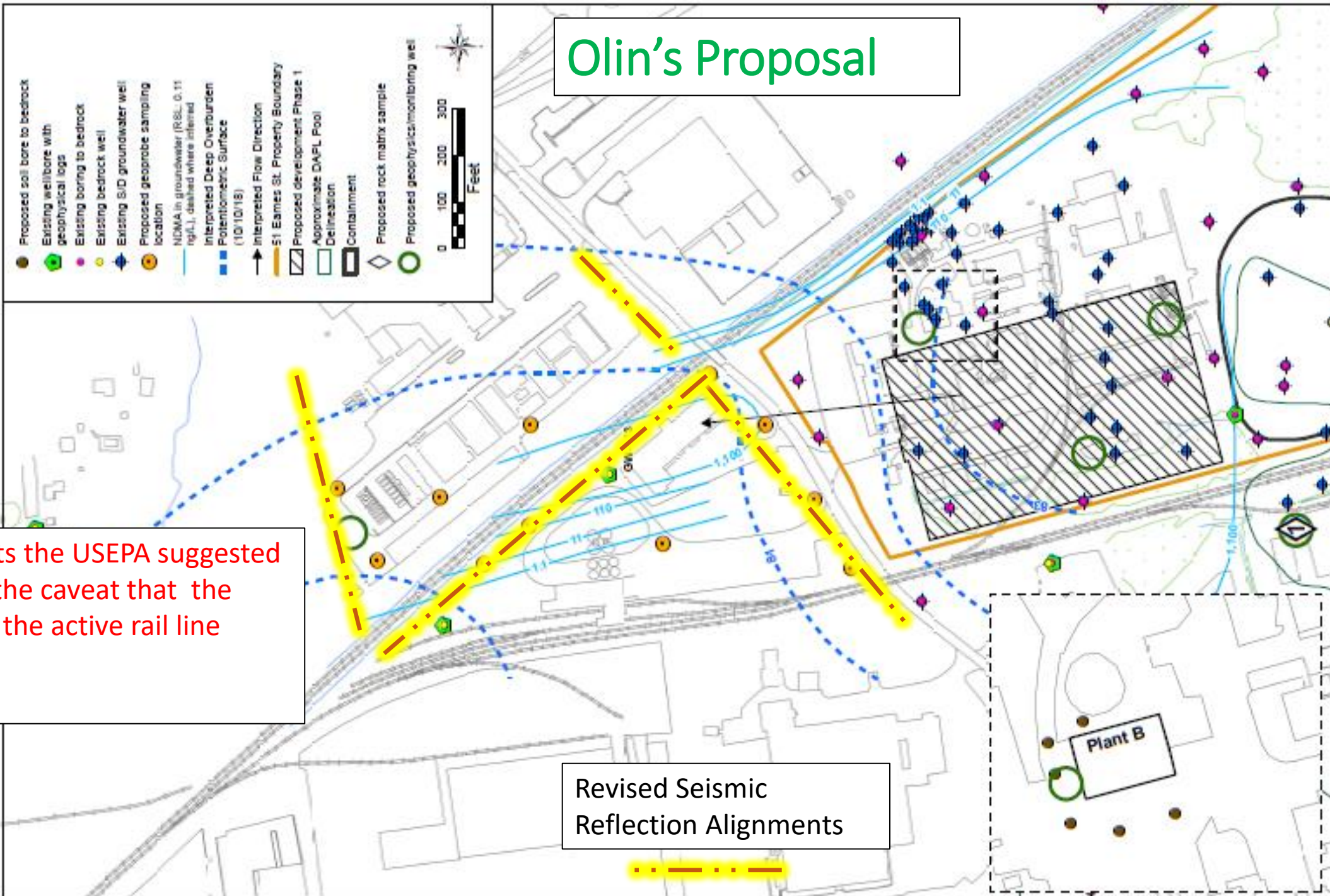
# EPA Seismic Reflection Survey Alignments (See Memo)

Revised Seismic Reflection Alignments





# Olin's Proposal

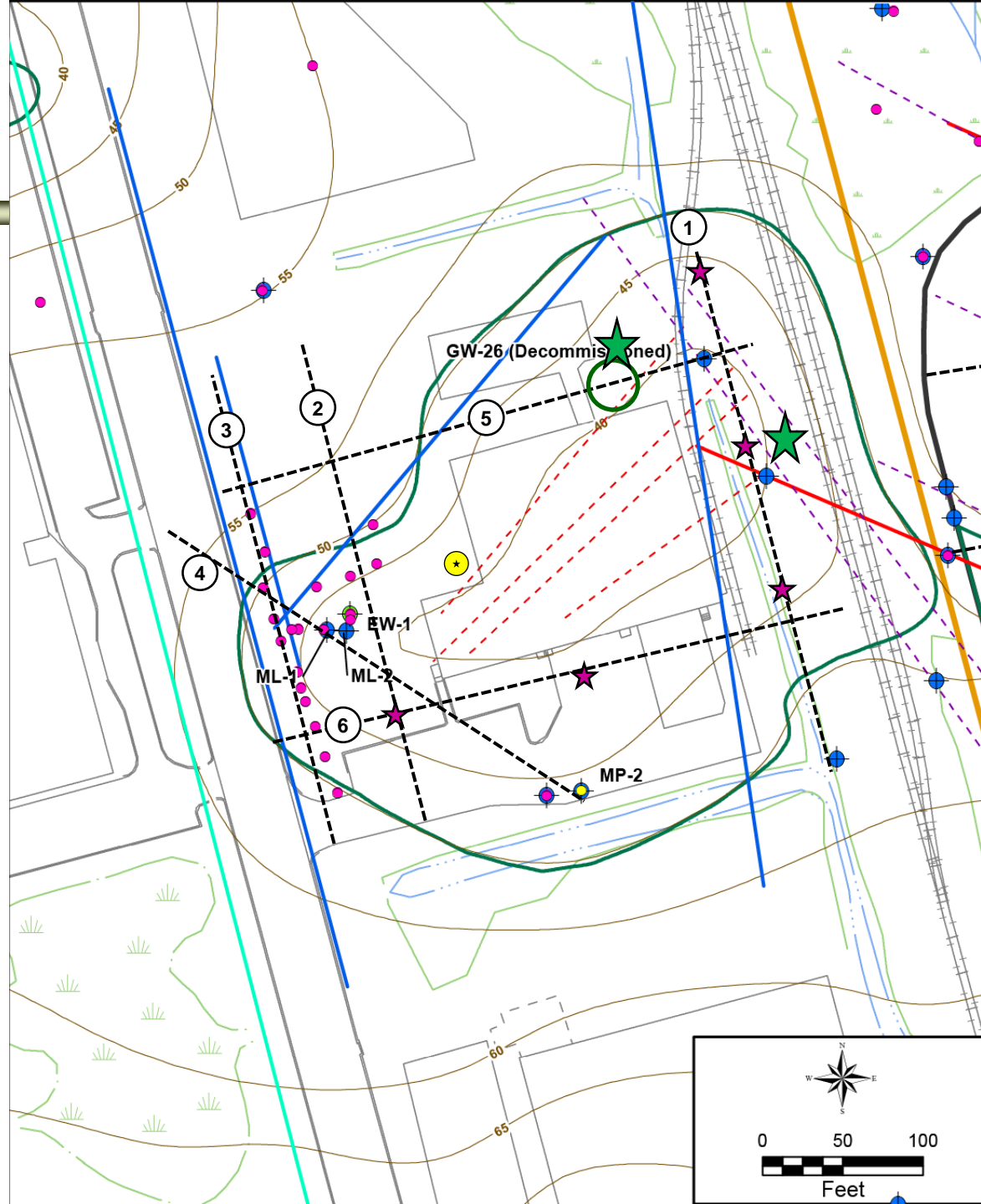


Olin accepts the USEPA suggested lines with the caveat that the line across the active rail line be split.

Revised Seismic  
Reflection Alignments



# Jewel Dr. Area OLIN PROPOSAL



## ★ Angle Bore

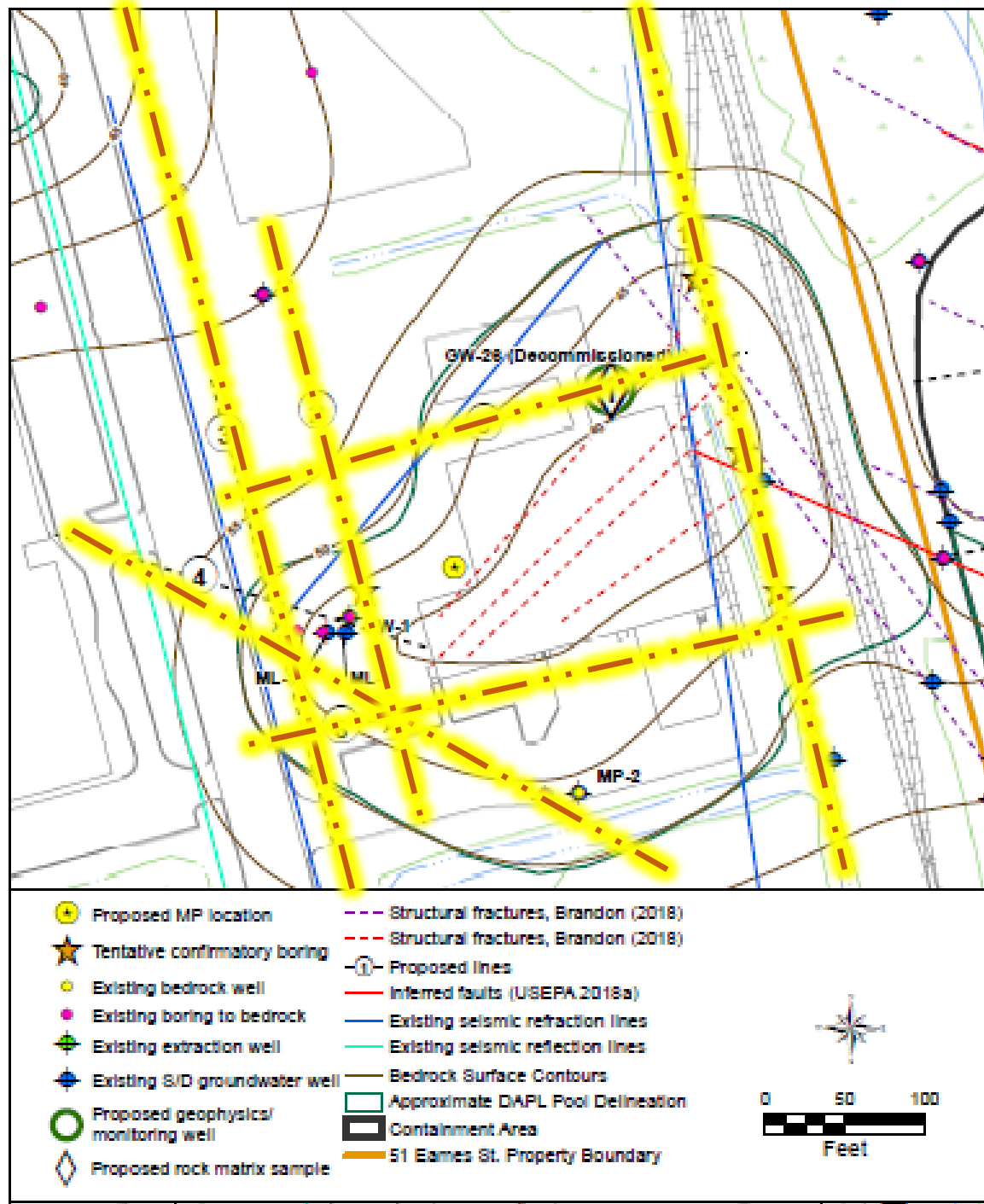
- ★ Proposed MP location
- ★ Tentative confirmatory boring
- Existing bedrock well
- Existing boring to bedrock
- Existing extraction well
- Existing S/D groundwater well
- Proposed geophysics/monitoring well
- Structural fractures, Brandon (2018)
- Structural fractures, Brandon (2018)
- ① Proposed lines
- Inferred faults (USEPA 2018a)
- Existing seismic refraction lines
- Existing seismic reflection lines
- Bedrock Surface Contours
- Approximate DAPL Pool Delineation
- Containment Area
- 51 Eames St. Property Boundary

# EPA Seismic Reflection Survey Alignments (See Memo)

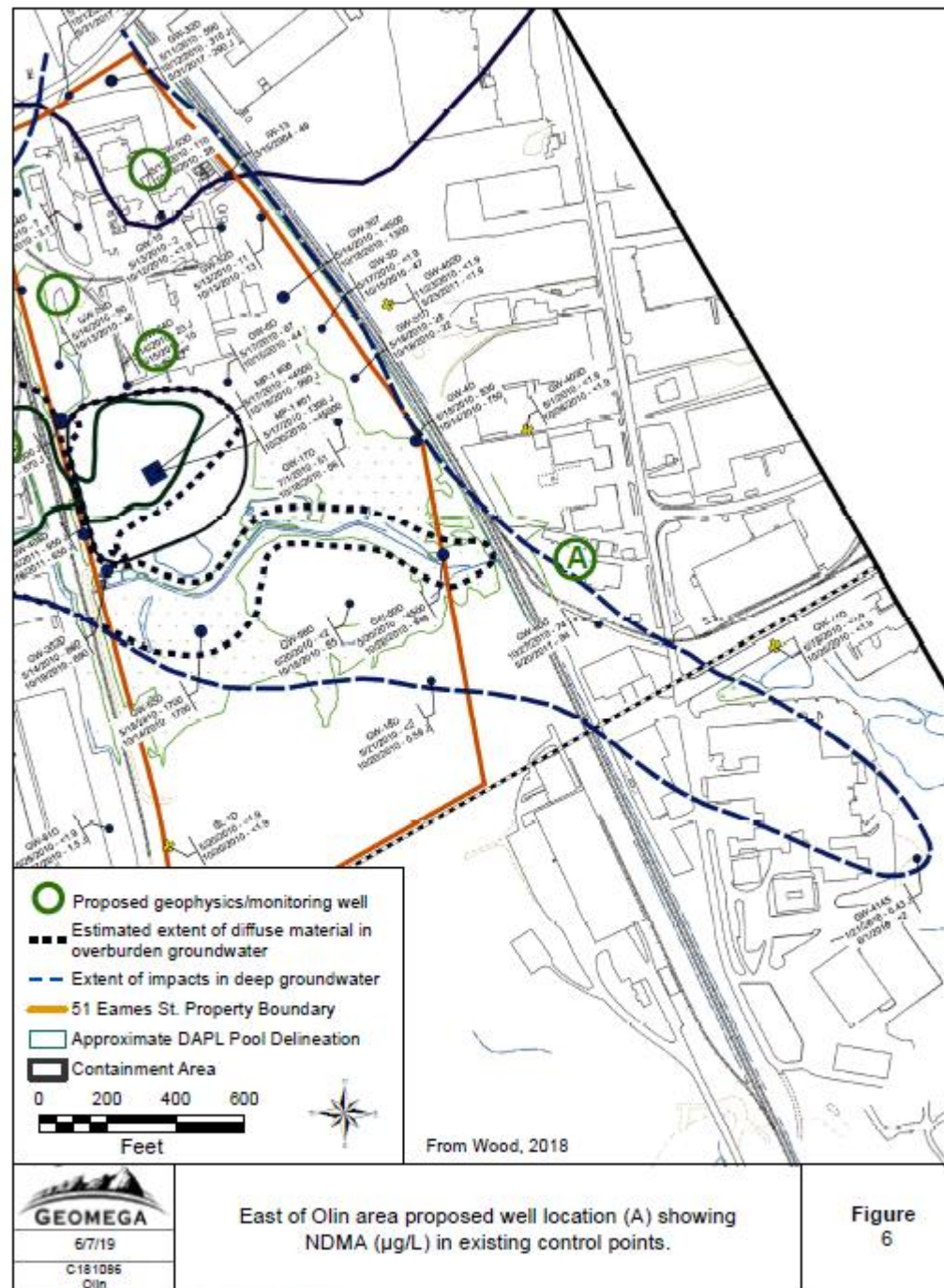
Revised Seismic  
Reflection Alignments



Olin accepts the USEPA  
suggested lines



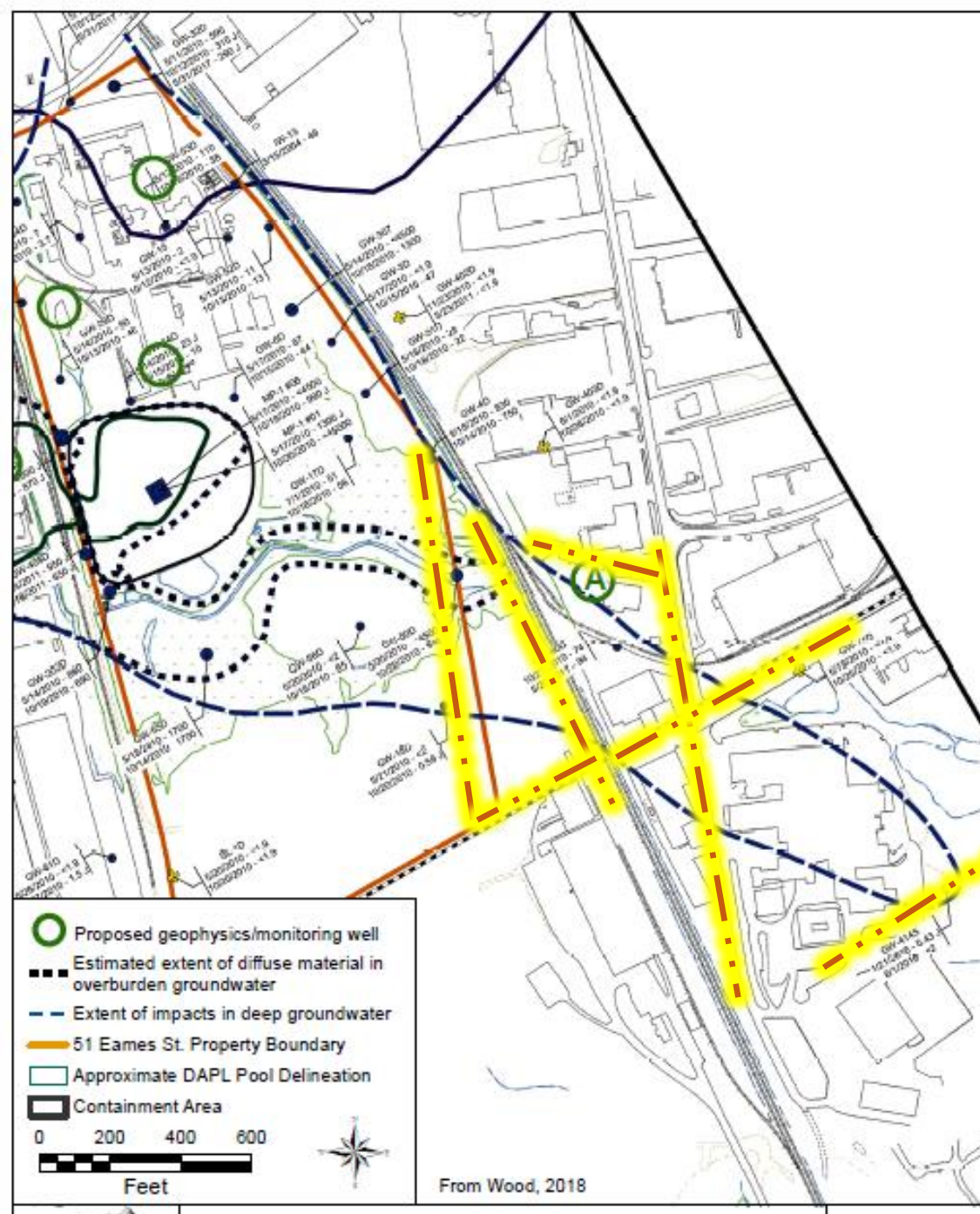
# EAST OF OLIN (OLIN PROPOSAL)





# EAST OF OLIN EPA Proposed Seismic Reflection Survey Alignments (See Memo)

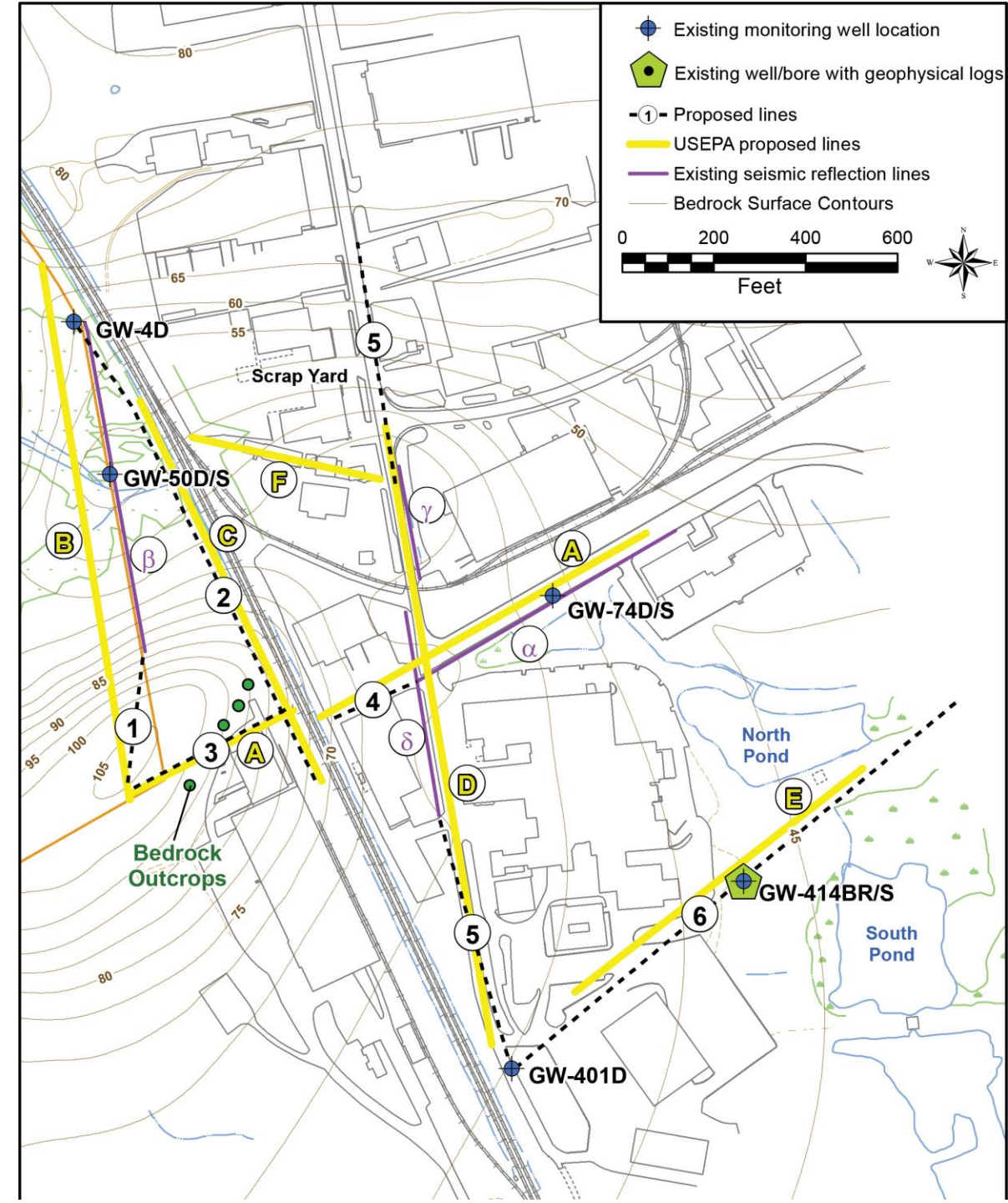
Proposed Seismic  
Reflection Alignments



# EAST OF OLIN

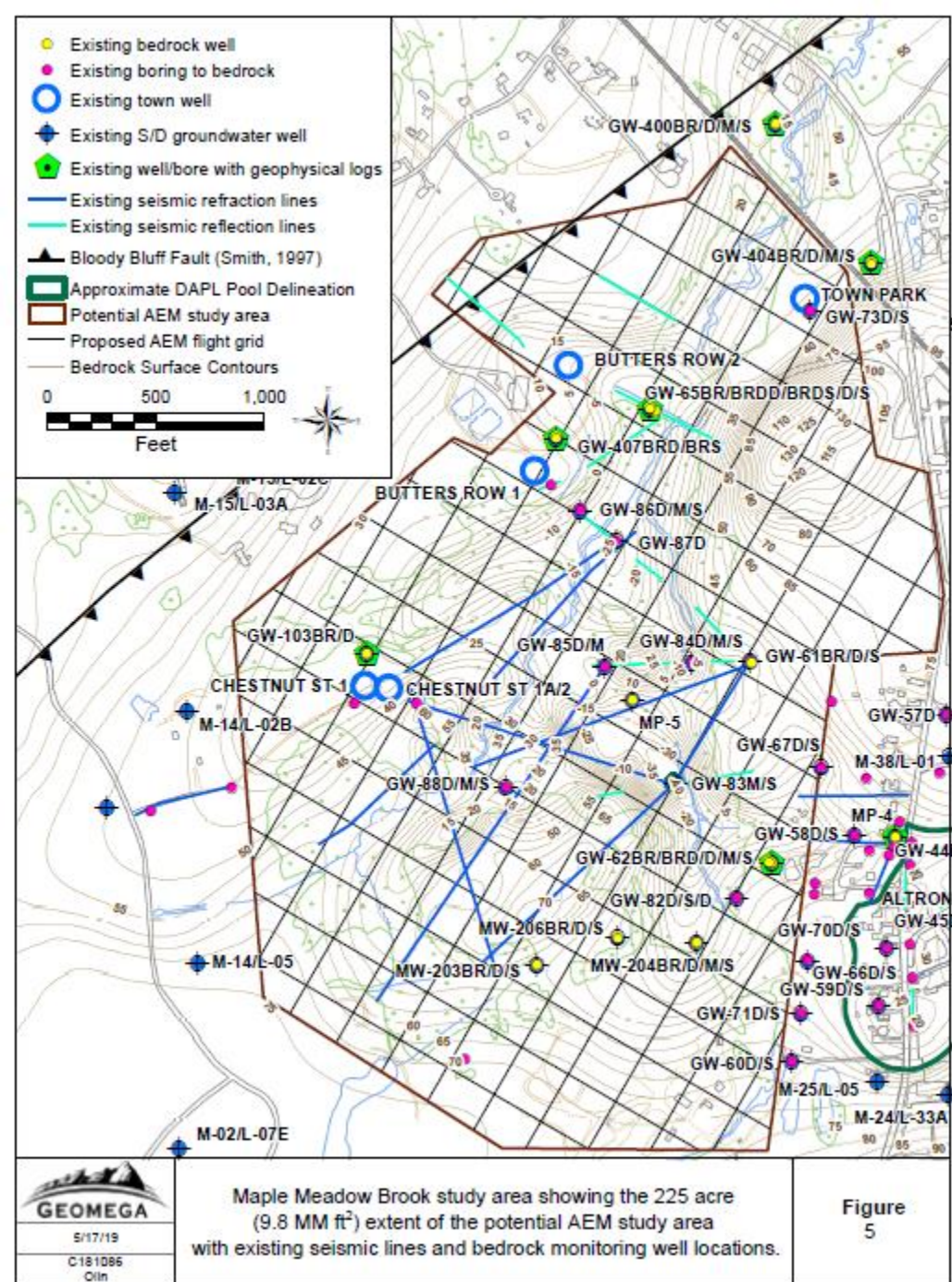
## Olin's proposed lines

Please see the memo accompanying this Power Point for a detailed explanation of the rationale behind Olin's proposed lines





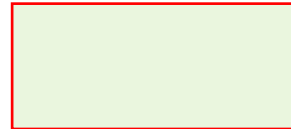
# MMB AEM SURVEY (OLIN PROPOSAL)





# MMB AEM SURVEY EPA Coverage Recommendation (see Memo)

Proposed Survey Area (see memo)



As mentioned on the July 12<sup>th</sup> telephone call, there are FAA constraints to flying over residences. However, Olin is exploring the possibility of flying around the Wilmington treatment plant to obtain additional coverage to the west and northwest

